Rocky Flats Cleanup Commission

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NOTES ON PROPOSED INTERIM MEASURES/INTERIM REMEDIAL ACTION PLAN

881 HILLSIDE

1. The problem is not stated till page 2-31. It should be up front.

2. The plan should start with a summary and conclusions.

3. A section that defines the acronyms and initials designating agencies, laws, and many other items must be included.

4. Table 3-1.2--The ARAR for antimony is exceeded--0.0798 > 0.06.

5. Beryllium is extremely poisonous. In Table 3-2.2 why not set ARAR = 0.005? In air maximum allowable concentrations for exposures to cadmium and selenium are 200 times greater than that for beryllium. Why is the concentration allowable in water set 10 times greater for beryllium than for either cadmium or selenium?

6. In Tables 3-1.1 to 3-1.4, 29 ARAR's are exceeded. When reducing them to acceptable limits each one is considered as if there are no other dangerous materials present. In setting standards for the removal of air contaminants the presence of all contaminants are taken into account. The concentration of each one, after cleanup is divided by the maximum allowable concentration for that contaminant. The total of all the fractions cannot exceed one. Thus, even if each contaminant is brought down to an acceptable level, compliance is not achieved until all of the dangerous contaminant fractions with respect to the allowable maximum total less than one. Unless a similar method is used with water contaminants, synergistic effects are not accounted for.

7. Table 4-1 gives the contaminant concentrations that are used as a basis for design of the removal systems. These values are lower than the maximum concentrations given in Tables 3-1.1 to 3-1.4. Why aren't the higher values used for system design? If average values are being used for design, that is dead wrong. It means that for about half of the time, the system is underdesigned.

8. Page 4-10 says that carbon beds that must be discarded become a candidate for discharge at the Nevada test site. What radionuclides are being collected that pose such danger that the carbon must be shipped to Nevada? The report does not make this clear.

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9. (See page 4-17)--A preheater will not "dehumidify" the air stripper emissions. If dehumidification is required a different process than preheating is needed. Heating the air will reduce the *relative* humidity.

10 Selenium has an ARAR of 0.01 mg/l but its concentration is 3.2 mg/l in the water stream that must be treated (320 times as much). Similarly total dissolved solids are 2374 mg/l but the ARAR is 400 mg/l--less than 20% of the amount to be treated. If only half the water flow is treated for each of the aforementioned constituents how can the required concentrations be attained?

11 The treatment system is designed to treat 30 gpm for 8 hours per day. 30 gpm x 60 min/hr x 8 hrs/day x 350 days per year = 5,000,000 gals/yr. The wall to stop contaminated water flow is 2100 feet long. If an area 300 feet wide is drained and the precipitation is 14 inches per year, the gallons per year that will drain are 300 feet x 2100 feet x 14/12 feet x 7.5 gals/cu ft = 5,500,000 gals/year. The capacity of the system is almost exactly equal to the water draining from the area 300 feet above the retaining wall. If a greater area must be drained or if the wall must be extended the system may have inadequate capacity.

12 The key problem with the proposed interim plan is that it must be regarded as temporary. Until the sources of the contamination in the burial grounds surrounding building 881 are completely removed the people drinking water downstream of the ground water flow (drawing water from Women's Creek) are in danger of getting contaminated drinking water.

13. On p. 2-25 dioctyl phthalate (DOP) is described as the most prominent volatile organic contaminant of the 881 Hillside. DOP is principally used to test HEPA filters. Does the presence of DOP annunciate the presence of spent HEPA filters grossly contaminated with plutonium? If it does, then the validity of the "Interim Remedial Action Plan" is called into question.

14. As near as I can tell, the plan estimates the expenditure of about $3 Million in capitol funds in the next 1½ year--about $2 Million per year. We have heard estimates of about $1 Billion to clean up the contamination at the Rocky Flats plant. At the rate we are moving, 500 years is a good estimate of how long it will take.

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